

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604

DATE: NOV 12 2014

SUBJECT: INSPECTION REPORT – West Bay Exploration Co., Jackson County, Michigan

Facility: Norvell 27 CTB, Norvell Township

FROM: Natalie Topinka, Environmental Scientist
AECAS (IL/IN)

THRU: Nathan Frank, Chief
AECAS (IL/IN)



TO: File

Date of Inspection: August 28, 2014

Attendees: Natalie Topinka, Environmental Scientist, U.S. EPA
Kristy Shimko, Geologist, Office of Oil, Gas and Minerals, MDEQ
Terry R. Pelham, Production Foreman, West Bay Exploration

Purpose of Inspection: The purpose of conducting an inspection of West Bay Exploration Co.'s Jackson County operations was to assess compliance with the Michigan State Implementation Plan and any applicable air permits.

Company Description and Background:

Location: Approximately 12730 Wamplers Lake road, Brooklyn, MI 49230
(Latitude: 42.091339, Longitude: -84.174633),

Primary Contact: Terry R. Pelham, Production Foreman

West Bay Exploration Company (West Bay) has headquarters in Traverse City, Michigan, with operations in several states including Michigan, Texas, Oklahoma, and North Dakota. The company employs 20 people and many more contractors and lease operators.

Opening Conference

I arrived at the Norvell 27 facility at 4:20 pm, with Ms. Shimko and Mr. Pelham of West Bay. We had all come directly from inspecting another West Bay facility so introductions were made previously. The following information was obtained verbally from Mr. Pelham during the inspection and in subsequent clarifying correspondence.

Norvell 27 Facility Overview

Mr. Pelham estimated that the first well serving the Norvell 27 facility began producing in about 2012. Currently on-site are ten 400-barrel storage tanks for oil and water (brine), eight tanks for oil and two for brine. The tank battery is equipped with a vapor recovery unit (VRU). However, recently West Bay had discovered that the operation of the VRUs at several facilities, especially during truck loading, introduced high levels of oxygen into the gas mix that was putting the gas out of specification for delivery into the pipeline. In addition, the elevated concentration of oxygen was causing excessive corrosion to components of the heater treaters. Therefore, on July 18, 2014, West Bay had shut down the VRU at the Norvell 27 and several other West Bay facilities.

The facility receives product from 12 wells, and 13 heater-treaters are on site. Each well has a dedicated heater-treater, with one extra for treating oil tanks. There is also one glycol dehydrator and a flare. The flare receives vapors from tanks, truck venting during loading, and/or emergency/overload conditions.

Facility Tour

I began my tour at the tank battery. Upon climbing the stairs to the tops of the tanks, I used the IR camera (a FLIR GF320) to take video clips of leaking tank thief hatches. Hatches on four of the eight oil tanks and both brine tanks were leaking continuously (see IR Camera Video log).

I also took two IR video clips of the flare, one from the top of the tank battery and one from ground level nearer the flare. The flare was lit throughout the duration of the inspection and I did not note any visible emissions (with the naked eye) from the flare. The IR video clips show a gas plume moving beyond the combustion zone of the flare. I briefly viewed the glycol dehydrator with the IR camera and did not noted any leaks.

Closing Conference

I shared my observations with Mr. Pelham regarding which tank hatches were leaking. Mr. Pelham did not claim any information as confidential business information. Mr. Pelham, Ms. Shimko, and I ended the day of inspections. I agreed to contact Mr. Pelham by phone the next

morning to continue inspections at other West Bay facilities. We departed the Norvell 27 facility at approximately 4:45 pm.

Photos



1) Tank battery.



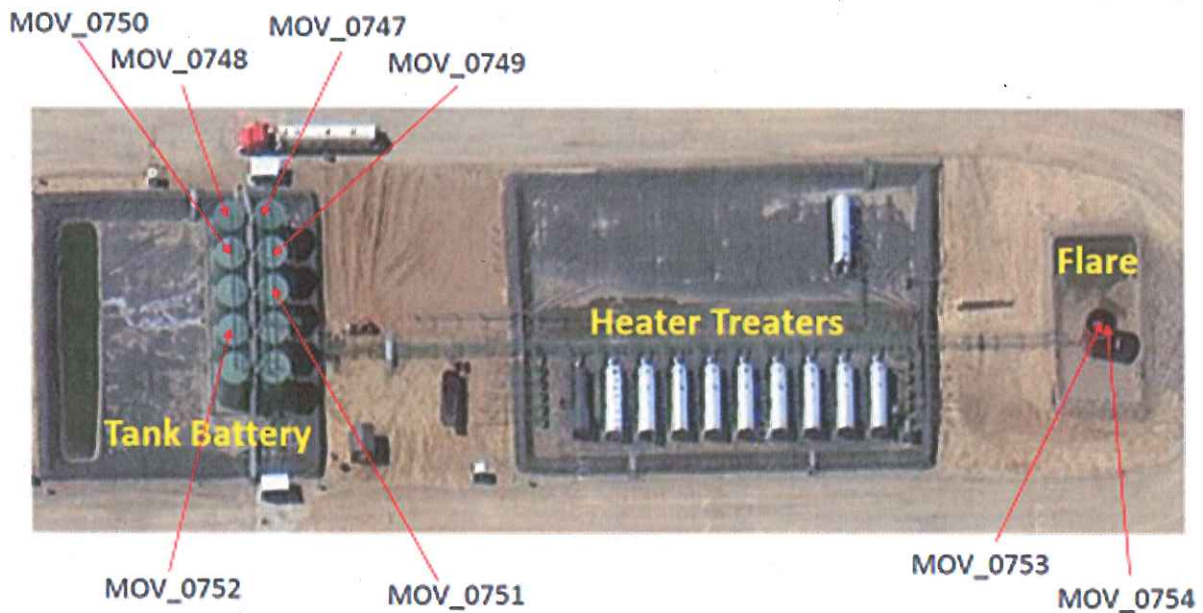
2) Glycol dehydrator.



3) Heater treaters with flare in background.

IR Video Log

Video ID number	Description
MOV_0747.mp4	Leaking thief hatch
MOV_0748.mp4	Leaking thief hatch
MOV_0749.mp4	Leaking thief hatch
MOV_0750.mp4	Leaking thief hatch
MOV_0751.mp4	Leaking thief hatch
MOV_0752.mp4	Leaking thief hatch
MOV_0753.mp4	Flare
MOV_0754.mp4	Flare



*Note: Glycol dehydrators not pictured – not yet present when the image was taken.

Image: Google Maps

Standard bcc's: official file copy w/attachment (s)
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